## IN THE SPECIFICATION

Please amend the specification as follows:

Page 1, before line 1 and after the title, please insert:

Cross Reference to Related Applications

This is a continuation of prior application serial no. 09/460,929 filed December 14, 1999, now pending.

Replace the first paragraph on page 1, between lines 9-18 of the specification with the following:

Time-division-duplex (TDD) transceivers are commonly used to provide two-way communications using a single carrier signal frequency. FIG. 1 illustrates an example block diagram of a conventional time-division-duplex transceiver 100 that utilizes quadrature modulation. The transceiver 100 includes a transmitter 130 that transforms an input data signal into quadrature signals TI 131 and TQ 132. A local oscillator 120 provides an in-phase oscillation signal 121, and a phase shifter 125 provides a quadrature-phase oscillation signal 122 that is 90 degrees out of phase with the in-phase oscillation signal 121. The quadrature signal TI 131 is modulated, at 142, by the in-phase oscillation signal 121, and the quadrature signal TQ 132 is modulated, at 144, by the quadrature-phase oscillation signal 122. The ~~mixer~~ adder 150 combines these modulated signals to produce a composite signal 151.

Replace the paragraph spanning pages 1-2, between page 1, line 24, and page 2, line 4 of the specification with the following:

The input signal ~~151~~ 161 is a composite signal that is segregated into corresponding quadrature signals RI 173 and RQ 175 by demodulators 172 and 174, respectively. Common in the art, the local oscillator 120 that is used to modulate the transmit quadrature signals TI and TQ is used to demodulate the received input signal ~~151~~ 161 into receive quadrature signals RI and RQ. A number of advantages are achieved by using a common local oscillator 120. In particular, the local oscillator 120 is typically a phase-locked oscillator, and using the same oscillator 120 during both phases of the transmit/receive switch 160 eliminates the need to re-phase or re-synchronize the oscillator 120 with each transition. Additionally, the use of the same local oscillator 120 provides a material cost savings compared to the use of a separate oscillator for each of the transmit and receive operations. The receiver 110 processes the quadrature signals RI 173 and RQ 175 to provide an output signal 102.

Replace the paragraph on page 2, between lines 14-22 of the specification with the following:

Due to component variations and other factors, however, a

difference in phase or amplitude from the ideal relationship between the quadrature signals TI 131 and TQ 132 can result in an image sideband having a considerable power content. FIG. 2 illustrates an example spectral power density plot of a convention transmitter 130 having a less-than-ideal relationship of amplitude or phase between the quadrature signals TI and TQ. As illustrated, a majority of power is located at the intended sideband at Fc + IF, at 220, but a considerable amount of power is illustrated at the carrier frequency FC, at 210, and at the image sideband at Fc - IF, at 230. To minimize the distortion of the demodulated intended signal, the transmitter or a distant receiver must filter this unintended and undesirable carrier and image signal power.

Add the following paragraph on page 8, between lines 2 and 3 of the specification with the following:

In particular, FIG 6 shows an RF input 661 which is similar to the RF input provided to the demodulators 172, 174 shown in FIG 3. However, instead of being provided directly to the demodulators 172, 174, the RF input 661 is provided to a phase shifter 610 whose output is provided to four demodulators 612, 614, 616, 618 that also receive oscillating signals 121, 122 from the local oscillator 120 in combination with the phase shifter 125. The outputs of the demodulators 612, 614, 616, 618 are selectively provides to adders

620, 630, whose outputs are filtered by a polyphase filter 640 and provided to the receiver 310 as the I and Q receive signals RI 173, RQ 175, as also shown in FIG 3.